

Title (en)  
INJECTION MOULDING PROCESS AND PRODUCT OBTAINABLE FROM THE PROCESS

Title (de)  
SPRITZGUSSVERFAHREN UND DANACH HERSTELLBARES FORMTEIL

Title (fr)  
PROCEDE DE MOULAGE PAR INJECTION ET PRODUIT SELON CE PROCEDE

Publication  
**EP 0981431 B2 20120613 (EN)**

Application  
**EP 98913447 A 19980414**

Priority  
• AU 9800255 W 19980414  
• AU PO617497 A 19970414  
• CA 2328700 A 19980414

Abstract (en)  
[origin: WO9846409A1] A process for the manufacture of thin-walled articles comprising the steps of: 1) selecting a polymer blend having an ESCR of greater than 10 hours; i) a plurality (preferably 6 or more) of strips of the polymer blend incorporating any post moulding treatment intended for the final article having the cross-sectional dimensions of 0.65 mm in thickness and 10 mm in width are injection moulded under high shear, long flow length conditions, similar to those intended for use in the manufacture of the flexible thin-walled article; ii) the strips are bent back upon themselves and stapled 3 mm from the bend; iii) the bent strips are immersed in a solution of a stress crack agent and held at a temperature of 50 DEG C; iv) the strips are observed for signs of cracking, any signs of cracking are regarded as a failure; and v) the time to failure is when 50 % of the strips show signs of cracking; 2) melting said polymer blend; 3) ramming the molten polymer blend into a mould, said mould having a cavity which produces a thin-walled article having a thin section less than 1 mm in thickness and wherein the thin section is substantially continuous for greater than 50 mm in the direction of flow of the molten polymer blend in the mould; and 4) removing from the mould the thin-walled article formed from the polymer blend.

IPC 8 full level  
**B29C 45/00** (2006.01); **B65D 35/08** (2006.01); **B65D 35/22** (2006.01); **B65D 35/24** (2006.01); **B65D 35/36** (2006.01); **B65D 35/44** (2006.01); **C08L 23/02** (2006.01); **B29C 45/14** (2006.01); **B29L 23/20** (2006.01)

CPC (source: EP US)  
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C-Set (source: EP US)  
1. **C08L 23/02** + **C08L 2666/04**  
2. **C08L 23/02** + **C08L 2666/24**  
3. **C08L 23/02** + **C08L 2666/14**

Citation (opposition)  
Opponent :  
• WO 9205024 A1 19920402 - JACOBS IAN ORDE MICHAEL [AU]  
• EP 0856554 A1 19980805 - OREAL [FR]  
• EP 0856473 A1 19980805 - OREAL [FR]  
• US 5759647 A 19980602 - KURODA RIKIO [JP], et al  
• US 5149484 A 19920922 - EALER GEORGE E [US]  
• US 4585817 A 19860429 - SU TIEN-KUEI [US], et al

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**WO 9846409 A1 19981022**; AT E254527 T1 20031215; AU PO617497 A0 19970508; CA 2665946 A1 19981022; CN 1143768 C 20040331; CN 1294548 A 20010509; DE 69819884 D1 20031224; DE 69819884 T2 20040902; DE 69819884 T3 20121122; DK 0981431 T3 20040329; DK 0981431 T4 20120917; EP 0981431 A1 20000301; EP 0981431 A4 20000308; EP 0981431 B1 20031119; EP 0981431 B2 20120613; ES 2210735 T3 20040701; ES 2210735 T5 20121022; ES 2210735 T9 20130729; HU 229496 B1 20140128; HU P0102647 A2 20011228; HU P0102647 A3 20030428; MX PA00010062 A 20050725; NZ 500163 A 20000728; PT 981431 E 20040430; TW 397757 B 20000711; US 6547094 B1 20030415; ZA 983104 B 19981030

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